Appl. No. 09/964,975 Amdt. dated June 25, 2004 Reply to Final Office Action of February 26, 2004

## **Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

## **Listing of Claims:**

- 1-5. (cancelled)
- 6. (currently amended) The device of claim 5 An input device comprising: a housing;

electronic circuitry for detecting user inputs and transmitting signals corresponding to said inputs to an electronic device;

<u>a sleep-mode circuit, coupled to said electronic circuitry, for activating a reduced</u> <u>power operation of said electronic circuitry;</u>

a capacitive hand detection circuit for detecting the proximity of a user's hand to said housing and producing a hand detect signal; and

said sleep mode circuit being responsive to said hand detect signal to awaken said electronic circuitry from said reduced power operation;

wherein said hand detection circuit is mounted inside a top of said housing, such that a portion of said housing insulates said user's hand from said capacitive hand detection circuit;

wherein said capacitive detection circuit comprises

first and second electrodes on said housing for capacitive connection with a user's hand;

a first circuit, coupled to said first electrode, for determining an amount of time for charging of a capacitance connected to said first circuit; and

a second circuit, coupled to said second electrode, for determining an amount of time for discharging of a capacitance connected to said second circuit;

such that an internal virtual ground is produced between said first and second electrodes; and

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wherein said first circuit comprises:

a comparator;

a controller coupled to an output of said comparator;

a voltage divider feedback circuit coupled between an output and a reference voltage input of said comparator;

a detection capacitor coupled between said first electrode and a signal input of said comparator; and

a switching circuit selectively coupling said signal input of said comparator to high and low voltage supplies.

7-26. (canceled)

27. (currently amended) An input device comprising:

a housing;

electronic circuitry for detecting user inputs and transmitting signals corresponding to said inputs to an electronic device; and

an optical hand detection circuit for optically detecting the proximity of a user's hand to said housing and producing a hand detect signal;

a controller for turning on and off said a light emitter, and providing said hand detect detection signal only after a predetermined number of on cycles provides a reflection to said detector above a threshold, wherein said controller further:

filters ambient light frequencies different from a frequency of said light emitter; cycles said light emitter on and off at a first rate before a hand detection, and at a second rate after a hand detection; and

requires detection of a hand for a predetermined number of cycles before issuing said hand detect signal.

28. (original) The input device of claim 27 wherein said controller removes said hand detect signal in the absence of a control input to said input device for a predetermined amount of time after a detection of a hand.

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- 29. (previously presented) The input device of claim 27 wherein said input device is a mouse.
- 30. (previously presented) The input device of claim 27 further comprising: a sleep-mode circuit, coupled to said electronic circuitry, for activating a reduced power operation of said electronic circuitry, said sleep mode circuit being responsive to said hand detect signal to awaken said electronic circuitry from said reduced power operation.
  - 31. (canceled)